IN THE SPECIFICATION

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. In response, please amend page 5 of the specification by replacing paragraphs 1 and 2, paragraph 1 as follows and paragraph 2 as set out below:

As shown in Fig. 1, the pickup coil 70 at sensor portion 30 detects the return signals from the folded wave guide 10, i.e. there are two signals, one down each leg 110, 120 of the folded wave guide 10 returning from the position magnet 80, which increases the strength of the signal by increasing the signal-to-noise ratio approximately by a factor of two, such return signals from the position magnet 80 being detected by the pickup coil 70 and being sensed at coil leads 90. Coil leads 90 may be connected as is well known in the art to process the signals from the two legs of folded wave guide 10, legs 110 and 120 as a mode converter.

The disclosure is objected to because of informalities contained on page 5. In response, replace paragraphs 2 and 3 with the following paragraphs as amended below:

As shown in Fig. 2, the same type of structure is shown, however the termination is different at the sensor head 230. Leg 110 is attached such as by welding, to a return pin 130. The other leg 120 is connected to a pick up coil 150, anchored to an anchor 180 which is connected to or a contiguous part of anchor pin 185 of anchor 180. A tape 160 connected to a bias magnet 170 acts as a mode converter as is well known in the art is connected such as by welding to leg 120. The coil 150 is connected to a ~~finished~~ finish pin 200 and a start pin ~~140~~ 190. All this may be carried on a bobbin 210.

Alternatively for the head, one of the wave guide leads 40, such as leg 110 may be connected to a return pin 130. It should be noted at this point that in Fig. 1 the wave guide leads 40 may be

connected in any manner known in the art, such as to a return pin, such as illustrated as return pin 130, or welded to a pin 130 or fit into a plug or otherwise be attached to a circuit card (not shown) for introducing the electrical or the current signal into the wave guide 10. As shown in Fig. 2, however, one of the wave guide leads, such as leg 110, is connected to the return pin 130 and does not go through the coil 150. This is because the pickup coil 70 in Fig. 1 is an end pickup coil, whereas in Fig. 2 the pickup coil 150 is a side pick-up coil. In Fig. 2 the leg 120 passes under pickup coil 150 to be anchored by anchor 180 for introducing the current pulse between return pin 130 and anchor pin 185 of anchor 180. Thus, the tape 160 and the bias magnet 170 are used with coil 150 through the ~~coil leads~~ start and finish pins 190, 200 and return pin 130 and anchor pin 185 which carry the detected signal in the same manner as the coil leads 90 from pickup coil 70.